



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D2500-1-100
Job Sheet 191572



Part No: D2500-1-100

Job Qty: 90 pcs

Part Name: Skidtube Extrusion



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 3/4/19

Job Tracking No:

Due Date: 4/12/19

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV H

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	Purchasing DAS 13 9-89	90 pcs	4/12/19	4/12/19	0.00	0.00	Purchasing - 1	AT 19/04/01
							Purchasing - 2	
							Purchasing - 3	
110	Packaging 2-1 - Receive - B4B	90 pcs	4/12/19	4/12/19	0.00	0.00	Packaging 2 - 1 - B4B	AT 19/04/01
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	
							Packaging 2 - 5 - B4B	
							Packaging 2 - 4 - B4B	
							Packaging 2 - 6 - B4B 28	
120	QC 6	90 pcs	4/12/19	4/12/19	0.00	0.00	QC 6 - 42	DAS 61 9-89
							QC 6 - 9	
							QC 6 - 68	
							QC 6 - 61	
130	Packaging 3-1 - Stock - B4B	90 pcs	4/12/19	4/12/19	0.00	0.00	Packaging 3 - 1 - B4B	AT 19/04/01
							Packaging 3 - 2 - B4B	
							Packaging 3 - 3 - B4B	
							Packaging 3 - 4 - B4B	
							Packaging 3 - 5 - B4B	
							Packaging 3 - 6 - B4B	
140	QC 21 - SA	90 pcs	4/12/19	4/12/19	0.00	0.00	QC 21 - SA - 21	DAS 21 9-89
							QC 21 - SA - 70	
							QC 21 - SA - 53	

Part Op 100 - Issue P/O: _____ a) Extrude as per Dwg D2500 b) Material: 6061-T6 (QQ-A-200/8) c) Minimum yield Descriptions: tensile strength = 35 ksi d) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation = 8% f) Order at 190" long g) Bon L Canada Inc. tool # 897105 h) To be packed per DSK 066 i) Pull test to ASTM standard B221 required. j) Material certification is required

110 - (Receive & Inspect for Damage & Mat'l Certs), Ensure material certification is attached

120 - (QC6- All purchased or subcontracted products), Check Pull test per Dwg D2500 for compliance page attached. Check hardness with Webster tester

130 - (Identify as per dwg & Stock Location: _____), LOCATION : LG002

140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2500-1-100P	Extrusion Round 3" 206	90 pcs (1 ea)	100-Purchasing	5168197

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D2500-1-100P	90	0	0

Part Specifications

Specifications could not be found.

Plex 3/4/19 1:51 PM dart.lavoie.chantal

SPECIFICATION CONTROL DRAWING

D2500-1-XXX EXTRUSION & D2500-3-XXX EXTRUSION

NOTES:

1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

MINIMUM TENSILE YIELD STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

7) WEIGHT: D2500-1 = 0.143 lb/in, D2500-3 = 0.066 lb/in

8) FOR D2500-1 PART NUMBER IS D2500-1-XXX WHERE XXX IS CUT LENGTH (EX. D2500-1-190 IS 190" LONG). D2500-1 EXTRUSION MANUFACTURED FROM:

- A) BON L DIE # 897105 -> PREFERRED
- B) CARADON MIDEAST DIE # PAH-28030
- C) CARADON MTL DIE # MH-18868

9) FOR D2500-3, PART NUMBER IS D2500-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EX. D2500-3-100 IS 100" LONG). D2500-3 EXTRUSION MANUFACTURED FROM:

- A) CARADON INDALEX DIE # MS-18867

RELEASED
2010-02-02
MT

H	REDRAW & REFORMAT DWG; CORRECT BON L DIE # TYPO (ZN B8-1), ADD AMS & ASTM MAT'L OPTION (ZN D8-1), TOLERANCES NOW PER CARADON DWG (SHT 2)	CP	09.07.16
G	ADD DIE NUMBERS & 'DIMS IN INCHES' NOTES	PH	07.04.17
F	CHANGE MAT. TO 6061-T6	DS	97.09.29
E	CHANGE MATERIAL TEMPER	DS	96.10.24
D	ADD MATERIAL PROPERTIES	DS	96.10.07
C	ADD D2500-3 WEB	BW	96.04.26
B	CHANGE INTERNAL WEB	DS	96.03.24
A	NEW ISSUE	DS	96.03.19
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN	<i>4</i>		
CHECKED	<i>PH</i>		
MFG. APPR.	<i>MD</i>		
APPROVED	<i>MD</i>		
DE APPR.	<i>4</i>		
DATE	09.07.16		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. D2500		REV. H SHEET 1 OF 2	
TITLE EXTRUSION		SCALE NTS	
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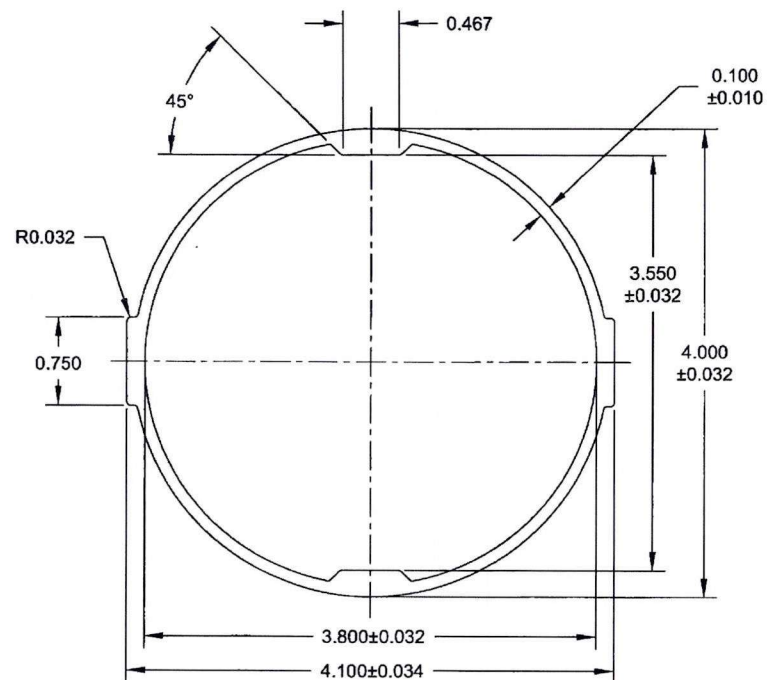
8 7 6 5 4 3 2 1

D

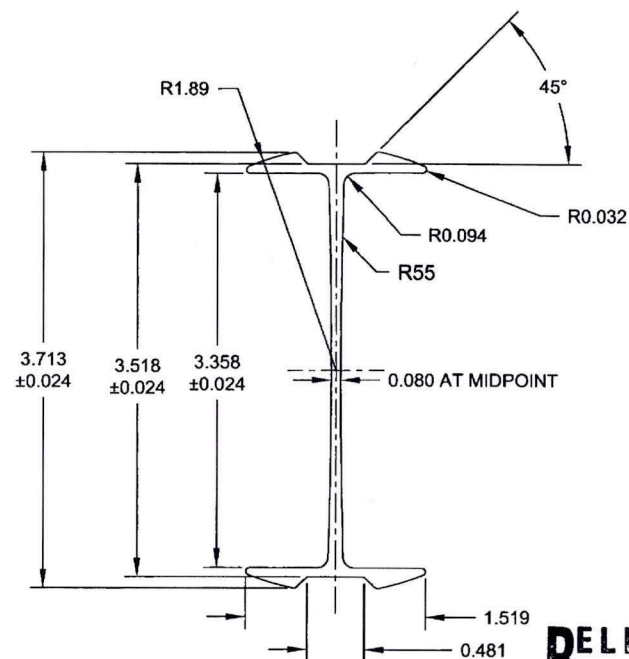
C

B

A



D2500-1



D2500-3

RELEASED
2010-02-02
MA

DESIGN	<i>4</i>	DART AEROSPACE LTD	
DRAWN	<i>GP</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>BT</i>	DRAWING NO.	REV. H
MFG. APPR.	<i>MA</i>	D2500	SHEET 2 OF 2
APPROVED	<i>MA</i>	TITLE	SCALE
DE APPR.	<i>MA</i>	EXTRUSION	NTS
DATE	09.07.16	COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO042892



Supplier: SIG001-VC
Signature Aluminum Canada Inc.
C/O/ T10322C
PO Box 4488, STN A
TORONTO
ON
M5W 4H1 Canada
Phone: 905-427-6550
Fax: 905-427-2246

PO No: PO042892
PO Date: 3/14/19
Due Date: 3/27/19
Purchase Order Revision:
Revision Date:
Ship-To Contact: Phone:

E-MAILED
MAR 15 2019

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1 AK		D2500-1-100P		Extrusion Round 3" 206 : EXTRUDE AS PER DWG D2500 REV. H DIE # DDA-897105-1 EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE	Firmed	-	3/27/19	90 pcs / 92x	0 pcs	90 pcs At 1904/01	\$40.1733/pcs	\$3,615.60
2 AK		D2600-1-160P		Extrusion Round 3" 206 DIE NO. DDA-897121-1 EXTRUDE AS PER DWG D2600 REV. E EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF TUBE MATERIAL MUST BE SMOOTH AND FREE FROM DEFECT SCRATCHES,NICKS,DENTS NOTE: MUST BE WELL PACKAGE, IF NOT WILL BE REFUSE	Firmed	-	3/27/19	90 pcs / 93x	0 pcs	90 pcs At 1904/01	\$37.9282/pcs	\$3,413.54
Grand Total:											\$7,029.14	



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PURCHASE ORDER PO042892



Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENT

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

A handwritten signature in black ink, appearing to be "CL" followed by a stylized flourish.

Plex 3/14/19 12:29 PM dart.lavoie.chantal

**SIGNATURE ALUMINUM CANADA**1850 CLEMENTS RD
PICKERING, ON L1W 3R8**CERTIFICATE OF COMPLIANCE**

Cert Date	Cert No.	Sales Order	Page
03/26/2019	5523566	135694	1
Cust PO	B/L No	Lot	Date
PO042892	042170	917475	03/28/19

Sold To	Ship To
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA

Item No	Part No	Item Description	Cust Part
001	DAA-897105-3	100" MILL 6061 T6	D2500-1-100
Gross Weight	1,340 LBS		
Net Qty	1,235 LBS	92 PCS	4 PKGS
Specification		Die Desc	
AMS-QQ-A-200/8 & ASTM B221-08			

Mechanical Tests:

Tensile	Yield			
MPA / KSI	MPA / KSI	% Elongation	Conductivity	HRE
321.4 / 46.6	295.2 / 42.8	13.4	N/A	95

Chemical Analysis:

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	V	Zr
0.64	0.25	0.21	0.05	0.89	0.07	0.17	0.01	0.01	0.00

*This Material is Made in Canada**This Material is RoHS Compliant*

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Gooder
Quality Manager
Signature Aluminum Canada Inc

ISO 9001/TS16949 Registered Company

Visit us at www.signaturealum.com

Rev A

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D2500-1-100

PO / BATCH NO.: P0042842/S168220

DATE: 19/04/01

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 4.000"

QUANTITY RECEIVED: 92x

THICKNESS RECEIVED: 4.000"

QUANTITY INSPECTED: 92x

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	☒ N	
CORRECT FINISH	☒ Y	N	
CORROSION	Y	☒ N	
CORRECT GRAIN DIRECTION	☒ Y	N	
CORRECT MATERIAL PER M-DRAWING	☒ Y	N	<u>Am 5-Q2-A-200/B</u>
CORRECT THICKNESS	☒ Y	N	
PHOTO REQUIRED	Y	☒ N	
CORRECT REF # TO LINK CERT	☒ Y	N	<u>P0042842</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y	N	
CORRECT M# ON THE MATERIAL	☒ Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> 9-89	SIGNED OFF BY: _____
DATE: <u>APR 01 2019</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in